

**DYNAMICALLY ADJUSTABLE TERMINATION IMPEDANCE  
CONTROL TECHNIQUES**

**ABSTRACT OF THE DISCLOSURE**

[0048] The on-chip impedance termination circuits can be dynamically adjusted to match transmission line impedance values. A network of termination resistors on an integrated circuit provides termination impedance to a transmission line coupled to an IO pin. The termination resistors are coupled in series and in parallel with each other. Pass gates are coupled to the resistors. The pass gates are individually turned ON or OFF to couple or decouple resistors from the transmission line. Each pass gate is set to be ON or OFF to provide a selected termination resistance value to the transmission line. The termination resistance of the resistor network can be increased or decreased to match the impedance of different transmission lines. The termination resistance can also be varied to compensate for changes in the resistors caused by temperature variations on the integrated circuit or other factors.

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